



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,586	04/25/2005	Kenji Saito	2005_0635A	4361
513	7590	12/28/2006	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			SCRUGGS, ROBERT J	
		ART UNIT	PAPER NUMBER	3723
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	12/28/2006	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/532,586	SAITO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert Scruggs	3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 August 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-13,15 and 16 is/are pending in the application.  
 4a) Of the above claim(s) 2 and 14 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1,3-13,15 and 16 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3723

### **DETAILED ACTION**

1. This office action is in response to the amendment received on October 13, 2006. Claim 2 has been cancelled, claim 14 was previously withdrawn without traverse in the restriction filed April 28, 2006 therefore claims 1 and 3-13, 15 and 16 will be fully examined. Applicant's arguments, see page 5, filed October 13, 2006, with respect to the rejection(s) of claim(s) 1 and 11 under 35 U.S.C 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made over Higuchi et al. (previously cited) in view of Noguchi et al. (previously cited) and Kusano et al. (5041304).

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (previously cited) in view of Noguchi et al. (previously cited) and Kusano et al. (5041304). Higuchi et al. and Noguchi et al. as mentioned in the applicant's specification (see specification, pages 3-6) disclose the known process of surface treating an inner surface of a vacuum member by first mechanically polishing the vacuum member with a liquid medium containing hydrogen atoms, then subjecting the vacuum member to a chemical or electrochemical polishing process. Higuchi et al. and Noguchi et al. also disclose the use of an oxidizing material formed as water which

Art Unit: 3723

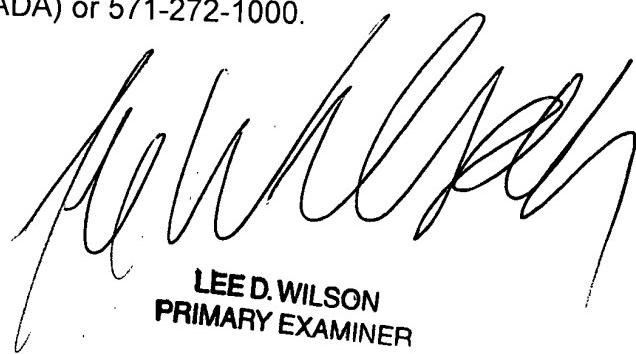
could be added to the liquid medium (see paragraph 6 of Higuchi et al.) however Higuchi et al. and Noguchi et al. lack a liquid medium absent of any hydrogen atoms where said liquid medium being a hydrocarbon in a molecule of which the hydrogen atom or hydrogen atoms are all substituted with a fluorine atom or fluorine atoms. However, Kusano et al. teaches of a surface treatment method including, an unsaturated hydrocarbon compound (column 2, Line 57) under ordinary pressure (atmospheric is considered ordinary, column 2, Lines 14-21) and ordinary temperature (column 4, Line 62) and wherein the hydrogen atoms are replaced with fluorine atoms (column 2, Line 57-61) for imparting a low surface energy thereby providing a smooth surface on the workpiece. The compound disclosed by Kusano et al. is a gaseous compound however regardless of the medium, gas, liquid or even solid, since Kusano et al. teaches a compound having the same effect or benefit as claimed by the applicant, which is to impart a smooth surface on the workpiece, the mediums could be interchangeable. Therefore, Kusano et al. is used to teach of a medium including hydrocarbon compound including hydrogen atoms, where said hydrogen atoms are replaced with fluorine atoms. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the liquid medium used in the known process, of Higuchi et al. and Noguchi et al. with a liquid medium formed as an unsaturated hydrocarbon compound under ordinary pressure and ordinary temperature, wherein the hydrogen atoms are replaced with fluorine atoms, as taught by Kusano et al. in order to provide a workpiece having a reduced surface energy and a low coefficient of friction thereby providing for a much smoother surface.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Scruggs whose telephone number is 571-272-8682. The examiner can normally be reached on Monday-Friday, 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LEE D. WILSON  
PRIMARY EXAMINER

RS